

to polymerase chain reaction amplification under conditions appropriate to simultaneously amplify said target sequence if present in said sample and said reference sequence;

(iii) denaturing the amplification product or products produced by step (ii);

(iv) subjecting said denatured amplification product or products of step (iii) to hybridization conditions [separately and sequentially with probes homologous to said target sequence and to said reference sequence,

each of said probes being removed from a sequence with which it is hybridized prior to the separate and sequential subsection of said amplification products to hybridization with another of said probes] with a first probe homologous to said target sequence or with a second probe homologous to said reference sequence denaturing resulting hybridization product;

(v) thereafter subjecting the product of step (iv) to hybridization with that one of said first and second probes not utilized in step (iv); and

(vi) determining whether said amplified target [and reference sequences] sequence are hybridized with said first probe[s homologous therewith] whether said reference sequences hybridized with said reference sequence,

false negative data being indicated by failure of either of said first and second probes to hybridize [either] to the sample sequence or to the reference sequence, [and]